

KOGAN, V.B., TOLSTOVA, T.S.

Separation of mixtures of the higher alcohols and hydrocarbons  
by the extraction method. Zhur.prikl.khim. 35 no.10:2333-2335  
O '62. (MIRA 15:12)

(Alcohols) (Hydrocarbons) (Extraction(Chemistry))

PAK, T.A.; KOGAN, V.B.

Method of checking and calculating equilibrium conditions in ternary systems by reducing them to binary systems. Part 4. Zhur.fiz.khim. 36 no.8:1624-1631 Ag '62. (MIRA 15:8)

1. Gosudarstvennyy institut prikladnoy khimii.  
(Systems (Chemistry)) (Phase rule and equilibrium)

PAK, T.A.; KOGAN, V.B.

Verification of liquid - vapor equilibrium in three-component  
systems with two liquid phases. Zhur. fiz. khim. 36 no.9:2046-  
2050 S '62. (MIRA 17:6)

KOGAN, V.B.; OGORODNIKOV, S.K.

Separation of ethylene chlorohydrin from aqueous solutions by  
azeotropic rectification. Khim.prom. no.9:660-663 8 '62.  
(MIRA 15:11)  
(Ethanol) (Distillation, Fractional)

KOGAN, Vladimir Borisovich; FRIDMAN, Viktor Mikhaylovich; KAFAROV,  
Viktor Vyacheslavovich; SUSHKOVA, T.I., red.isd-va;  
SOROKINA, V.A., tekhn. red.

[Manual on solubility] Spravochnik po rastvorimosti. Moskva,  
Izd-vo Akad.nauk SSSR. Vol.2. [Ternary multicomponent systems]  
Troinnye, mnogokomponentnye sistemy. Book 2. 1963. 2066 p.  
(MIRA 16:4)

1. Moscow. Vsesoyuznyy institut nauchnoy i tekhnicheskoy in-  
formatsii.

(Systems (Chemistry)) (Solubility)

GENKIN, A.N.; OGORODNIKOV, S.K.; KOGAN, V.B.; NEMTSOV, M.S.; PRESMAN, B.I.

Influence of polar substances on the relative volatility of  
C<sub>5</sub> hydrocarbons. Zhur.prikl.khim. 36 no.1:142-147 Ja '63.  
(MIRA 16:5)  
(Hydrocarbons) (Volatility)

S/076/63/037/001/007/029  
B108/B186

AUTHORS: Pak, T. A., Kogan, V. B. (Leningrad)

TITLE: Calculation of the liquid - vapor equilibrium in three-component systems with two liquid phases. VI

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 1, 1963, 63-67

TEXT: Using the Duhem - Margulis equations for binary liquid systems the equations

$$\lg a_1 = [\lg a_1]_{x_1=0} - \int_{x_1=0}^{x_1} \frac{(x_1/x_2)' - (x_1/x_2)''}{(x_1/x_2)' - (x_1/x_2)''} d \lg a_1, \quad (3)$$

$$\lg a_2 = [\lg a_2]_{x_1=0} - \int_{x_1=0}^{x_1} \frac{(x_1/x_2)' - (x_1/x_2)''}{(x_1/x_2)' - (x_1/x_2)''} d \lg a_1, \quad (4)$$

are derived for the activities  $a_i$  of two liquid phases in a ternary system.  $x_i'$  and  $x_i''$  are the molar fractions of the  $i$ -th component in the

Card 1/2

Calculation of the liquid...

S/076/63/037/001/007/029  
B108/B186

liquid phases. Solving these equations together with the equation  $P = p_1^0 a_1 + p_2^0 a_2 + p_3^0 a_3$  gives the values of  $a_1, a_2, a_3$  by successive approximation. With these it is possible to calculate the molar fractions  $y_i$  of the components in the vapor:  $y_i = p_i^0 a_i / P$  ( $i = 1, 2, 3$ ).  $P$  is the total pressure, the  $p_i^0$  are the vapor pressures of the pure substances at equilibrium temperature. The applicability of the formulas was tested on the ternary systems ethanol-dichloro ethane-water and n-propanol - water - n-propylacetate. The calculated and experimental results are in good agreement. There are 1 figure and 3 tables. ✓

ASSOCIATION: Gosudarstvennyy institut prikladnoy khimii (State Institute of Applied Chemistry)

SUBMITTED: July 14, 1961

Card 2/2



BUROVA, G.V.; KOGAN, V.B.; NEMTSOV, M.S.

Solubility of  $C_5$  hydrocarbons in polar substances and their mixtures. Zhur. prikl. khim. 36 no.5:988-994 My '63.

(MIRA 16:8)

(Hydrocarbons)

(Solubility)

ACCESSION NR: AP4043766

S/0080/64/037/008/1776/1786

AUTHOR: Komarova, Ye. G.; Kogan, V. B.

TITLE: Investigation of equilibrium liquid-liquid-vapor in the system n.-heptane-nitromethane-nitroethane

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 8, 1964, 1776-1786

TOPIC TAGS: heptane, nitromethane, nitroethane, chromatography, paraffin, nitro-paraffin, helium

ABSTRACT: The authors have developed a design for an instrument based on the use of gas-liquid chromatography for determining phase compositions. The design was tested during an investigation of equilibrium between the liquid phases and vapor in a three-component system at temperatures of 20, 40 and 70°C. The reagents used in this investigation were purified of admixtures by way of fractional distillation on a column measuring 1.2 m in height and 18 mm in diameter. The column was topped by a cap in the form of 2x2 mm wire spirals. An effective separation of components was achieved through the use of solid paraffin applied on diatomite bricks at a ratio of 1:4, in the capacity of a stationary phase. Spiral, glass chromatographic columns with lengths of 2-3 m and diameters of 4-5 mm were used. The separation

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ACCESSION NR: AP4043766

temperature was  $99.5 \pm 0.3^{\circ}\text{C}$ . Helium was used as a carrier gas. Registration devices included a cataromatic indicator and an EPP-09 electronic potentiometer. The obtained experimental data was verified by means of strict thermodynamic correlations. The chromatographs were interpreted by introducing standardization coefficients. Heptane was used as a comparable component with a coefficient equal to 1. The authors concluded that the experimental data obtained on the equilibrium liquid-liquid-vapor, agree thermodynamically with each other. Thus the simple design of the instruments make it possible to obtain reliable results on the equilibrium between liquid phases and vapor. Orig. art. has: 6 figures and 6 tables.

ASSOCIATION: none

SUBMITTED: 12Nov63

ENCL: 00

SUB CODE: OC

NO REF SOV: 005

OTHER: 004

Card 2/2

KOMAROVA, Ye.G.; KOGAN, V.B.

Verification of liquid - liquid - vapor equilibrium in the  
system benzene - cyclohexane - ethylenediamine. Zhur.prikl.  
khim. 37 no.7:1570-1578 J1 '64. (MIRA 18:4)

PAK, T.A.; KOGAN, V.B.

Checking and calculation of equilibrium between vapor and saturated solution in ternary systems. Zhur. fiz. khim. 38 no.9:2121-2127 S '64. (MIRA 17:12)

1. Institut prikladnoy khimii, Leningrad.

BUKOVA, G.V.; KOGAN, V.B.; NEMTSOV, M.S.

Liquid - vapor equilibrium in the quaternary and ternary systems formed by  $C_5$  hydrocarbons and separating agents. Zhur. prikl. khim. 38 no.1:121-128 Ja '65.

Relation between solubility and effectiveness of separating agents used in the processes of extraction rectification. Ibid.:128-134 (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka imeni I. I. Lavrenko.

**"APPROVED FOR RELEASE: 09/18/2001**

**CIA-RDP86-00513R000723620003-8**

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**CIA-RDP86-00513R000723620003-8"**



BUROVA, G.V.; KOGAN, V.B.; NEMTSOV, M.S.

Liquid - vapor equilibrium in ternary systems formed by  
C<sub>5</sub> hydrocarbons and a separation agent at elevated temperatures  
under pressure. Zhur.prikl.khim. 38 no.11:2505-2513 N '65.  
(MIRA 18:12)

1. Submitted November 4, 1963.

KONONOV, H.P.; MAKAROVSKIY, Ya.I.; ROZENGART, M.I.; KOGAN, V.B.

Chromatographic determination of the selectivity of separation  
agents. Zhur.prikl.khim. 38 no.11:2522-2528 N '65.

(MIRA 18:12)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.  
Submitted December 16, 1963.

SIVTSOVA, E.V.; KOGAN, V.B.; OGORODNIKOV, S.K.

Use of gas-liquid partition chromatography for selecting a separation agent for the extraction rectification of methylchlorosilane mixtures. Zhur.prikl.khim. 38 no.11:2609-2611 N '65. (MIRA 18:12)

1. Submitted April 12, 1965.

TOLSTOVA, T.S.; KOGAN, V.B.; SKOROKHOVA, V.L.

Liquid - vapor equilibrium in the systems nitrobenzene -  
nitromethane, nitrobenzene - nitroethane. Zhur.prikl.khim.  
38 no.11:2617-2618 N '65. (MIRA 18:12)

1. Submitted November 15, 1963.

L 10784-66 EWT(5)/EMP(1) RM  
 ACC NR: AP6000009  
 AUTHOR: Sivtsova, E.V.; Kogan, V.B.; Ogorodnikov, S.K. 44-53  
 ORG: None  
 TITLE: Use of gas-liquid distributing chromatography in the choice of a separation agent for extraction rectification for mixtures of methylchlorosilanes 7/44, 5  
 SOURCE: Zhurnal prikladnoy khimii, V.38, no.11, 1965, 2609-2611  
 TOPIC TAGS: chromatography, rectification, silane  
 ABSTRACT: The experiments were performed on a gas chromatograph with a detector operating on the principle of heat conductivity and an automatic recording device. The chromatographic column was 2.5 meters long and 4 mm in diameter. It was filled with previously calcined brick impregnated to the amount of 20 weight percent with the separation agent being tested. Preliminary tests showed that the brick did not absorb methylchlorosilanes. The carrier gas was helium. The tests were run at a temperature of 25.00. Based on the experimental results, the article gives a table showing calculated values of the relative volatility coefficients. It was found that a majority of the substances tested greatly increased the relative volatility of silicon tetrachloride,  
 Card 1/2  
 UDO: 543.544 + 542.61

L 10784-66

ACC NR: AP6000009

methyldichlorosilane, trimethylchlorosilane, methyltrichlorosilane, and, to the greatest degree, dimethylchlorosilane. A study was made of the temperature dependence of the relative volatility coefficients of the methylchlorosilanes for the most effective separation agents. Results of the tests show that with an increase in temperature the relative volatility of the components of the mixture decreases. Orig. art. has: 2 formulas and 2 tables.

SUB CODE: 07/ SUBM DATE: 12Apr65/ ORIG REF: 001/ OTH REF: 014

Card 2/2

L 8080-66 ENT(m)/EPF(c)/EWP(1)/T/EWA(c)/ETC(m) RPL DS/WH/3M  
 ACC NR: AP6000010 44,55 SOURCE CODE: UR/0080/65/038/011/2617/2618  
 AUTHOR: Tolstova, T. S.; Kogan, V. B.; Skorokhodova, V. L. 44,55 43  
 ORG: none B  
 TITLE: Liquid-vapor equilibrium in nitrobenzene-nitromethane and nitrobenzene-nitro-  
 ethane systems 7, 44,55  
 SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 11, 1965, 2617-2618  
 TOPIC TAGS: nitromethane, nitroethane, nitrobenzene, physical chemistry property,  
 liquid vapor equilibrium, fluid property, CHEMICAL EQUILIBRIUM  
 ABSTRACT: This paper presents for the first time data on liquid-vapor equilibrium  
 in systems consisting of nitrocompounds: nitromethane (10-90 mol%)-nitrobenzene,  
 and nitroethane (10-90 mol%)-nitrobenzene. It was found that the activity coef-  
 ficients for nitromethane and nitroethane are approximately equal in mixtures of  
 analogous composition: 1.259-1.023 and 1.24-1.014, respectively. Orig. art. has:  
 4 tables. [4]  
 SUB CODE: 07 / SUBM DATE: 15Nov63/ ORIG REF: 003/ OTH REF: 001/ ATD PRESS:  
 4146  
 Card 1/1 UDC: 541.127

KOGAN, V.D.

Relation between the sulfuration and fracture tectonics. Izv. AN  
SSSR. Ser. geol. 23 no.11:97-109 N '58. (MIRA 12:1)

1. Institut geologii AN TurkmSSR, g. Ashkhabad.  
(Sulfuration) (Geology, Structural)



AUTHOR: Kogan, V.D. SOV/11-58-11-8/14

TITLE: On the Connection of Sulfuration with Fracture Tectonics  
(O svyazi oserneniya s treshchinnoy tektonikoy)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1958,  
Nr 11, pp 97 - 109 (USSR)

ABSTRACT: Detailed studies of the sulfur bearing layers in the Gaur-  
dak (Turkmen SSR) deposits showed that the sulfuration  
process was closely connected with the system of fractures  
in the calcareous-anhydrite stratum of the deposit. These  
fractures were filled with epigenetic sulfur in the Quater-  
nary Period. There are 3 tables, 4 charts, 1 graph, and  
8 Soviet references.

ASSOCIATION: Institut geologii AN TurkmSSR, g. Ashkhabad (The Institute  
of Geology of the AS of the Turkmen SSR, Ashkhabad)

SUBMITTED: August 14, 1957

1. Geology 2. Geophysics 3. Sulfur--Geology 4. Geochemistry

Card 1/1

3(8)

AUTHOR:

Kogan, V. D.

SOV/20-125-5-41/61

TITLE:

On the Genesis of Native Sulphur (K genezisu samorodnoy sery)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 5, pp 1103-1105 (USSR)

ABSTRACT:

There are various views concerning sulphur genesis (Refs 1-4 ,9, and others). Among them, the formation of sulphur deposits by gypsum reduction and the substitution of gypsum by sulphur and calcite in situ is allotted a significant place (Ref 3). The investigation of sulphur ores cited by the author and the containing rocks of Gaurdak make it possible to approach the solution of this problem from the other standpoint. It was determined that the accessory minerals of the limestones and the gypsums (anhydrites) deviate from each other (Table 1). The sulphur occurrence of Gaurdak can be divided into 2 approximately equal large groups: I) Grains of well formed crystals of sulphur, intergrowths of the latter (0.5 - 1 mm to 2 - 5 cm and larger), along with pores, caverns and fractures which are commonly filled with calcite. Characteristic is that sulphur predominantly lies in the lower part of the cavities, calcite however, in the upper part. II) (so called dispersed occurrences)

Card 1/3

On the Genesis of Native Sulphur

SOV/20-125-5-41/61

the fine grained sulphur (tenths and hundredths of a mm) forms a fine intergrowth with calcite. These occurrences usually form thin strata, which are reminiscent of those in gypsum and anhydrite. There are no differences of opinion concerning the epigenetic character of the first group (Refs 1,2,4-7). The genesis of the second group remains unexplained. The following assumptions were made to clarify this problem: if one part of the sulphur deposit was formed by gypsum replacement, the other by replacement of limestone, then 1) the accessory minerals of the first group must be equal to the accessories of the gypsums. 2) the accessories of the second group of sulphur deposits must be equal to the accessories of the limestones. In order to verify this assumption the insoluble residues were obtained from gypsum, anhydrite and various ore and limestone types. Most of the accessory minerals constitute only tenths and hundredths of a percent, with the exception of gypsum, anhydrite, celestine, quartz, iron sulphide, and iron hydroxide. Table 1 shows the results of the comparison. The data show the containing rocks (gypsums, anhydrites, limestones). The sulphur occurrences can be divided into 2 groups according to the accessory minerals: A) with a relative slight total quantity

Card 2/3

On the Genesis of Native Sulphur

SOV/20-125-5-41/61

of accessories with greater variety. Here belong most of the dispersed deposits (however, not all) and individual samples of the first group. B) a higher total quantity of accessories (chiefly celestine and sulphide) with a relatively slight variation of different minerals. Here belong a large part of the first group and a part of the second. The material quoted shows, in addition to other things (Ref 2), that at least a part of the dispersed deposit originated by a direct replacement (definitely metasomatism) of the anhydrites (via gypsum) by sulphur. This replacement ensues both from micro-fractures of the stratification and by tectonic micro-fractures. There are 1 table and 9 references, 7 of which are Soviet.

ASSOCIATION: Institut geologii Akademii nauk TurkmSSR (Institute of Geology of the Academy of Sciences of the TurkmenSKaya SSR)

PRESENTED: December 26, 1958, by N. M. Strakhov, Academician

SUBMITTED: December 15, 1958

Card 3/3

ARKHINOS, B.Ye.; FOGAN, V.D.; FEDOROVICH, G.P.

Formation of the Spivakovka uplift at the northwest subsidence of  
the Donets Basin. Gas.prom. 5 no.10:1-5 0 '60. (MIRA 13:10)  
(Donets Basin—Geology, Structural)

KOGAN, V.D.

Minor and accessory minerals in gypsums of Gaurdak Mountain. Zap.  
Vses. min. ob-va 89 no.1:52-62 '60. (MIRA 13:10)

1. Institut geologii AN Turkmenzskoy SSR, Ashkhabad.  
(Gaurdak Mountain—Gypsum)

KOGAN, V.D.

Principal patterns of the distribution and structure of sulfur ores  
of Gaurdak. Dokl. AN SSSR 142 no.3:677-680 Ja '62. (MIRA 15:1)

1. Predstavleno akademikom N.M.Strakhovym.  
(Gaurdak region--Sulfur)

KOGAN, V.D.

Relationship between gypsum and native sulfur. Min. sbor. no.15:  
321-325 '61. (MIRA 15:6)

1. Institut geologii Turkmenskoy SSR, Ashkhabad.  
(Gypsum) (Sulfur)



KOGAN, V. D.

Dissertation defended at the Institute of the Geology of Ore Deposits,  
Petrography, Mineralogy, and Geochemistry for the academic degree of  
Candidate of Geologo-Mineralogical Sciences:

"Mineralogy, Features of Distribution, and Genesis of the Northern  
Ores of Gaurdak."

Vestnik Akad Nauk, No. 4, 1963. pp. 119-145

KOGAN, V. D.; ANDREYEVA, V. I.

Age of diapiric structures in the eastern part of the Dnieper  
graben. Geol. nefti i gaza 7 no.4:47-51 Ap '63.  
(MIRA 16:4)

1. Trest Khar'kovneftegasrasvedka.

(Dnieper Valley—Geological time)

KOGAN, V.D.

Basic rhythms in the chemogenic formation of the Donets zone Permian.  
Sov. geol. 7 no.9:95-103 S '64. (MIRA 17:10)

1. Trest "Khar'kovneftegazrazvedka".

L 29298-66 EWT(1)/- IJP(c) GO

ACC NR: AP6012454

SOURCE CODE: UR/0181/66/008/CO4/1008/1012

AUTHORS: Kogan, V. G.; Tavger, B. A.

ORG: Gor'kiy State University im. N. I. Lobachevskiy (Gor'kovskiy gosudarstvennyy universitet)

TITLE: Superconductivity<sup>2/</sup> in thin nondegenerate semiconductor films<sup>2/</sup>

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1008-1012

TOPIC TAGS: superconductivity, semiconducting film, semiconductor carrier, semiconductor band structure, carrier density, critical temperature.

ABSTRACT: This is a continuation of earlier work by one of the authors (Tavger, with V. Ya. Demikhovskiy ZhETF v. 48, 748, 1965), where it was shown that conditions for realization of superconductivity in semiconductors can be improved by preparing the sample in the form of a thin film. The present article considers the superconductivity of a many-valley semiconductor film. By using a model in which the electron states lie in a two-dimensional Brillouin zone and the phonon spectrum is the same as for a bulky sample, the authors investigate the dependence of the appearance of superconductivity on the thickness of the film, on

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L 29298-66

ACC NR: AP6012454

4  
the carrier density, and on the depths of the impurity levels. The results show that the superconductivity region has two critical limiting temperatures, and that there is no superconductivity from zero temperature to the lower critical temperature. This means that in this temperature interval the electron attraction does not lead to Cooper pairing. The critical temperatures depend strongly on the difference between the depth of the donor levels and the energy gap. When this difference is zero, the lower critical temperature vanishes. With decreasing thickness, the lower critical temperature increases and the higher critical temperature decreases. The authors thank V. L. Bonch-Bruyevich for valuable remarks, B. T. Geylikman, and V. Z. Kresin for useful discussions, and V. Ya. Demikhovskiy for continuous interest in the work and a fruitful discussion. Orig. art. has: 1 figure and 14 formulas.

SUB CODE: 20/ SUBM DATE: 23Jul65/ ORIG REF: 006/ OTH REF: 002

Card

2/2 BK

KOGAN, V.G.; LAVROVSKIY, V.A.

Capillary model of highly disperse and porous bodies as applied to filtration phenomena. Koll.shur. 27 no.3:383-387 My-Je '65.

(MIRA 18:12)

1. Institut radiotekhniki i elektroniki AN SSSR, Moskva. Submitted July 22, 1963.

KOGAN, V.G.; LAVROVSKIY, V.A.

Determination of the pore size distribution function in a porous  
body. Koll. zhur. 26 no.6:680-685 N-D '64 (MIRA 18:1)

1. Institut dvigateley AN SSSR, Moskva.

KAZAKEVICH, E.V., inzh.; KOGAN, V.G., inzh.

Centralize the preparation of concrete mixtures. Shakht. stroit. 8  
no.7:15-16 JI '64. (MIRA 17:10)

1. Krivorozhskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta organizatsii i mekhanizatsii shakhtnogo stroitel'stva.



KOGAN, V.G., inzh.

Increase the stability of cement shaft linings of Krivoy Rog Basin  
mines. Shakht. stroi. 9 no.2:19-20 F '65. (MIRA18:4)

1. Krivorozhskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta organizatsii i mekhanizatsii shakhtnogo stroitel'stva.

KOGAN, Vladimir Il'ich; GALITSKIY, Viktor Mikhaylovich; ZHABOTINSKIY, Ye.Ye.,  
redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[Collection of problems on quantum mechanics] Sbornik zadach po  
kvantovoi mekhanike. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry,  
1956. 415 p. (MLRA 10:4)  
(Quantum theory--Problems, exercises, etc.)

KOGAN, V. I.

1(7)

PHASE I BOOK EXPLOITATION SOV/1242

Akademiya nauk SSSR. Institut atomnoy energii

Fizika plazmy i problema upravlyayemkh termoyadernykh reaktsiy,  
t. II. (Plasma Physics and the Problem of Controlled  
Thermonuclear Reactions, t. 2) [Moscow] Izd-vo AN SSSR, 1958.  
355 p. 3,000 copies printed.

Resp. Ed.: Leontovich, M.A., Academician,

PURPOSE: This collection contains previously unpublished work of  
members of the Institut atomnoy energii (Institute of Atomic  
Energy) of the Academy of Sciences of the USSR. It is intended  
for scientists interested in this field.

COVERAGE: This book is the second of four volumes of previously  
unpublished work of members of the Institute of Atomic Energy  
during the period 1951-58. The exploitation cards on the  
other volumes in this series have been released under the  
numbers 1241, 1243, and 1244.

Card 1/3

Plasma Physics and the Problem (Cont.)

SOV/1242

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3

KOGAN, V.I.

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PHASE I BOOK EXPLOITATION SOV/1243

Akademiya nauk SSSR. Institut atomnoy energii

Fizika plazmy i problema upravlyayemykh termoyadernykh reaktsiy,  
t. III. (Plasma Physics and the Problem of Controlled  
Thermonuclear Reactions, v. 3) [Moscow] Izd-vo AN SSSR,  
1958.. 362 p. 3,000 copies printed.

Resp. Ed.: Leontovich, M.A., Academician.

PURPOSE: This collection contains previously unpublished work of  
members of the Institut atomnoy energii (Institute of Atomic  
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COVERAGE: This book is the third of four volumes of previously  
unpublished work of the members of the Institute of Atomic  
Energy during the period 1951-58. The exploitation cards on the  
other volumes in this series have been released under the  
numbers 1241, 1242, and 1244.

Card 1/3

Plasma Physics and the Problem (Cont.)

SOV/1243

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ROGAN, V. I.  
LUKYANOV, S. Y., SINTSYN, V. I., and KOGAN, V. I.

"Spectroscopic Investigations of Strong Pulse Discharges."

paper to be presented at the 2nd UN Intl. Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13 Sep 58.



BABIKOV, V. V. and KOGAN, V. I.

"Radiant Heat Losses of a Dense High Temperature Plasma." (Work carried out in 1955); pp. 86-98.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. III, 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.  
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

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KOGAN, V. I.

103. "Recombination Radiation of Hydrogen Plasma." (Work carried out in 1956); pp. 99.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. III. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.  
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

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KOGAN, V. I.

"The Yield of Themonuclear Reactions." (Work - 1953); pp. 109-129.

"The Physics of Plasmas; Problems of the Controlled Theronuclear Reactions." Vol. II  
1958, published by Inst. Atomic Energy, Acad. Sci. USSR.  
Resp. ed. I. M. A. Leontovich, editorial work V. I. Kogan.

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KOGAN, V. .I.

"The Velocity of Equilibration of the Temperatures of Charged Particles in a Plasma" (Work - 1951); pp. 130-137.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. I. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.  
resp. ed. M. A. Leontovich, editorial work V. I. KOGan.

Available in Library.

KOGAN, V. I. and MIGDAL, A. B.

"The Electron Temperature Dependence of the Spectrum of the Bremsstrahlung of a Plasma." (Work - 1951); (and reworked in Preparation for publication); pp. 172-177.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions;" Vol. I. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.  
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

Available in Library.

KOGAN, V. I.

"The Widening of Spectral Lines in a High Temperature Plasma." (Work carried out in 1956-57); pp. 258-304.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. IV. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.  
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

Available in Library.

KOGAN, V. I.

AUTHOR:

Kogan, V. I.

89-2-11/35

TITLE:

Electron Temperature and the Degree of Ionization in the First Stage of a Powerful Pulsed Discharge (Elektronnaya temperatura i stepen' ionizatsii v nachal'noy stadii moshchnogo impul'snogo razryada).

PERIODICAL:

Atomnaya Energiya, 1958,

Nr 2, pp. 178-180 (USSR).

ABSTRACT:

For hydrogen the magnitudes mentioned in the title are represented by means of formulae, ionization taking place by a kind of electron mechanism.

If the discharge takes place in the course of some  $\mu s$  at from  $\sim 0,05$  to 2mm tory hydrogen has, in this special case, not the time to change over to any stable state. Therefore the thermodynamic description is no longer applicable to the connection between electron temperature and degree of ionization.

As a basis for the description of the relations the author assumed that the velocity of ionization ( $\dot{n}$ ) is about proportional to the number of photons ( $n \cdot \lambda$ ) emitted per second.

Furthermore, the number of ionization acts ( $f$ ) is calculated by means of a "Mean" Palmer quantum as a function of electron energy  $\epsilon$ . The following magnitudes are then calculated if there is a Maxwell distribution of electron velocities at the temperature  $T_e$ :

Card 1/2

Electron Temperature and the Degree of Ionization in the First Stage of a Powerful Pulsed Discharge. 89-2-11/35

a) The intensity of ionization  $\gamma = \langle v \sigma_e \rangle$

b) The total intensity of Palmer lines  $\tau_e$

These two values are shown in form of a table together with  $\{$  for  $T_e = 0$  to 300 eV.

There are 2 tables, and 6 references, 2 of which are Slavic.

SUBMITTED: November 11, 1957.

AVAILABLE: Library of Congress.

Card 2/2

1. Electrons-Ionizing effects
2. Hydrogen-Ionization
3. Gas discharges-Properties



KOGAN, V. I.

AUTHORS: Borzunov, M. A., Kogan, V. I., Orlinskiy, D. V.

89-2-12/35

TITLE: Estimation of Electron Temperature and the Degree of Ionization in the First Stage of a Powerful Pulsed Discharge (Otsenka elektronnoy temperatury i stepeni ionizatsii v nachal'noy stadii moshchnogo impul'snogo razryada).

PERIODICAL: Atomnaya Energiya, 1958, Nr 2, pp. 180-183 (USSR).

ABSTRACT: In a glass tube of a diameter of 18,5 cm and a distance between the electrodes of 97 cm the discharge takes place. As source of current a charged condenser battery of 35  $\mu$ F was used. In all experiments the current in the maximum of the first half period attained about 250 kA. As apparatus for the registration of the radiation of discharge a Cs-0-vacuum photo-tube was used which had an integral sensitivity of 40  $\mu$ A/Lumen. The distance between the cell and the discharge tube was 3300 mm, of the discharge tube only 20 cm being exposed. The signals from the photo-tube were directed to the deflector plate of a two beam oscillograph. With hydrogen pressure values of 0,3, 0,5, 1,0 and 2,0 mm Hg (initial pressure) the corresponding oscillograms were made. The experimental data - measured intensity of radiation in the visible part of the spectrum-express the following:

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a) With a given initial pressure  $T_e$  changes only little within a long

Estimation of Electron Temperature and the Degree of Ionization 89-2-12/35  
in the First Stage of a Powerful Pulsed Discharge.

interval, that is to say, within the range in which a salient point is to be expected in the current curve.

b) With increasing initial pressure  $T_e$  reaches a value of about 4eV at 0,1 mm Hg and a value of about 2,5 eV at 2 mm Hg.

c) The degree of ionization averaged with respect to the gas-discharge cross-section amounts, as regards the salient point  $t_{oc}$ , to some percents.

There are 4 figures, 2 tables, and 3 Slavic references.

SUBMITTED: September 11, 1957.

AVAILABLE: Library of Congress.

Card 2/2

1. Electrons-Ionizing effects-Estimation
2. Hydrogen-Ionisation
3. Gas discharges-Properties

AUTHOR: Kogan, V. I. SOV/48-22-6-19/28

TITLE: On the Theory of the Broadening of Spectral Lines in the Plasma (K teorii ushireniya spektral'nykh liniy v plazme)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958, Vol. 22, Nr 6, pp. 714-717 (USSR)

ABSTRACT: The theoretical results obtained with respect to the increase of the broadening of spectral lines as a result of the Stark effect are derived, in which connection the excitation of the atom by an electric field, which is due to the accumulation of a large number of moving charged particles, is taken into account. Only in such a scheme is it possible rigorously to apply the ratio between the statistical and the collision method for the purpose of calculating the increase in width, which has hitherto been investigated only on the basis of successive collisions of the atom with various perturbation particles.

This binary model is all the more adequate to the phenomenon under investigation the greater is the radius of the interaction forces of the atoms and particles. In the theory sug-

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SOV/48-22-6-19/28

On the Theory of the Broadening of Spectral Lines in the Plasma

gested it is assumed that

- 1) not only the ions but also the electrons can be classically described,
- 2) that the position of the charged particles is reciprocally not correlated,
- 3) that the perturbing field is homogeneous throughout the entire extent of the atom, and
- 4) that the interaction of the field with respect to the atom is adiabatic.

On the basis of these assumptions it follows that a Fourier-expansion of the wave takes place, which corresponds to the radiation of the perturbing equivalent oscillator, by which the shape is obtained for any Stark component in classically adiabatic approximation. There are 1 table and 10 references, 5 of which are Soviet.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskii institut  
(Moscow ~~Physic~~ and Engineering Institute)

Card 2/3

SOV/48-22-6-19/28

On the Theory of the Broadening of Spectral Lines in the Plasma

1. Spectroscopy--Theory 2. Perturbation theory

Card 3/3

20-118-5-16/59

AUTHOR: Kogan, V. I.

TITLE: On the Theory of Spectral Line Broadening in a Plasma  
(K teorii ushireniya spektral'nykh liniy v plazme)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 5, pp.907-910  
(USSR)

ABSTRACT: The present paper reports on the results of the theory of the broadening of spectral lines due to the Stark effect, the perturbation of the radiating atom by the electric field of a totality of a great number of moving charged particles being taken into consideration. Only such a system permits rigorously to investigate the relation between the statistical theory and the collision theory. This binary model is the better adapted to phenomena, the greater the radius of the interaction forces of the atom and the particles. The following assumptions are made in the here proposed theory; It is possible to describe ions as well as electrons in a classical manner. Their spatial distribution at a given mean

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20-118-5-16/59

## On the Theory of Spectral Line Broadening in a Plasma

density is random. The perturbing field is homogenous and it acts adiabatically on the atom. On these assumptions the wave train emitted by the perturbed equivalent oscillator is represented by a Fourier series. This then furnishes the form of any arbitrary Stark component in a classical adiabatic approximation. A formula is written down for the intensity distribution of the Stark components. An expression for the just mentioned intensity is written down, taking into consideration only the ions. This generalized statistical approximation supplements the usual correction for the thermal movement of the ions. Then the intensity distribution of the Stark component for the quasi-binary case is written down. In this case the totality of the ions moving within the framework of the adiabatic model essentially reduces to the static Stark splitting of the line by the mean field. The principal effect, that is to say, the splitting, can also be determined immediately. The results found here speak in favor of the unfoundedness of the often made assertion that the broadening effect of electrons is small compared with the effect of ions in the linear Stark effect. The here found expression is - roughly speaking - the result of the superposition of two effects - the displacement caused by

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20-118-6-16/59

On the Theory of Spectral Line Broadening in a Plasma

ions. In the quadratic Stark effect it is sufficient to take into consideration the perturbing particles of one type. Finally the admissibility of the initially given assumptions is examined. There are 12 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut  
(Moscow Institute for Engineering Physics )

PRESENTED: December 4, 1957, by M. A. Leontovich, Member, Academy of Sciences, USSR

SUBMITTED: December 3, 1957

Card 3/3



21(7)

AUTHOR:

Kogan, V. I.

SOV/20-128-4-18/65

TITLE:

The Role of the Radiation of Admixtures in the Energy Balance of a Plasma Cord

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4, pp 702-705 (USSR)

ABSTRACT:

One of the possible energy losses of hydrogen or deuterium plasma is the radiation connected with the existence of admixtures. This radiation prevents the increase of the electron temperature and there are three types of this radiation: the bremsstrahlung (free-free transitions), recombination radiation (free - bound transitions), and line-radiation (bound - bound transitions). At low temperatures the line radiation is preponderant. Under conditions prevailing in this case of a rarefied plasma the temperature dependence of the effective rate of ionization  $Z_{eff}$  of the admixture atoms is obviously not determined by the Saha formula. The present paper uses the results of the important work by G. Knorr (Ref 2) to estimate the role of the admixtures' radiation in the energy balance of a concrete plasma system. It concerns

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The Role of the Radiation of Admixtures in the Energy Balance of a Plasma Cord SOV/20-128-4-18/65

in this case a cord which is heated by the magnetic field of the current passing through it and by the joulean heat. The author first discusses the role of a quantitatively small admixture in the energy balance of the plasma cord. The temperature of the ions and of the electrons is assumed to be identical. The energy balance equations are written down and explained. In contrast to its separate components the summary intensity of the admixtures' radiation varies only very little within the temperature interval investigated. There is a table with the values of different quantities appearing in the above-mentioned equations. When the admixture content is above 0.01 to 0.1%, the admixtures have the main role in the radiation of the plasma. The natural measure of the role of the admixtures in the energy balance is the ratio of the emitted energy to the Ohmic heat.

$Q_{\text{radiation}}/Q_{\text{Joule}} = N^*/N^*_{\text{critical}}$  is valid, whereby  $N^* = \kappa a^2 n^*$ , i.e. the number of atoms of admixture per unit length of the cord. An expression for the "critical" number of admixture-atoms per unit length is written down;  $a$  denotes the radius of the filament. In a given admixture,  $N^*_{\text{crit}}$  is of constant

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The Role of the Radiation of Admixtures in the  
Energy Balance of a Plasma Cord

SOV/20-128-4-18/65

order of magnitude in the entire temperature interval examined. The part of energy carried off by radiation of the admixtures depends under the present conditions on the absolute number of admixture particles in the cross section of the cord. The hitherto existing deliberations are then generalized to the case that the contribution of the admixtures in the cord is not small. This case can be realized only in a stationary cord when there is a low number of hydrogen ions in the cross section. Finally the author gives several conclusions; main conditions for the usability of the results of the present paper are (in addition to the previously described assumption) a sufficient rarefaction of the plasma and a sufficiently long discharge period. The upper limit of the density is given by the postulation that the excited ion in the admixture has to be able to extinguish by the time of the next electron impulse. The author expresses acknowledgements to L. A. Artsimovich, M. A. Leontovich, and S. I. Braginskiy for discussing the present paper. There are 1 table and 5 references, 3 of which are Soviet.

Card 3/4

87401

9.9845

26.1410

S/020/60/135/006/016/037  
B019/B056

AUTHOR: Kogan, V. I.

TITLE: The Fluctuating Microfield and Multiple Collisions in a Gas of Charged (or Gravitating) Particles

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 6, pp. 1374 - 1377

TEXT: The present paper was read at the Second Conference on Magneto-hydrodynamics held in Riga in June 1960. Various characteristics of the multiple scattering of charged particles in a gas, which are usually calculated according to the scheme of pair collisions, contain integrals that diverge logarithmically for large distances  $q$ . In the introduction, papers are discussed, in which  $q_{\max}$  was investigated. The part played by fluctuations of the microfield in the determination of  $q_{\max}$  has hitherto found little attention, and where it has been taken into account, errors have been committed. The scattering of a particle in a gas is investigated here. Proceeding from the square of the transverse increment of

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The Fluctuating Microfield and Multiple Collisions in a Gas of Charged (or Gravitating) Particles

S/020/60/135/006/016/037  
B019/B056

the momentum of this particle:  $(\Delta \vec{p}_1)^2 = 2q_0^2 \int_0^{\Delta t} d\tau \int_0^{\Delta t - \tau} \vec{E}_1(t) \vec{E}_1(t+\tau) dt$ , an

expression is obtained for the correlation coefficient  $\langle \vec{E}_1(t) \vec{E}_1(t+\tau) \rangle$ , which depends only on  $\tau$ , with the help of which the square of the transverse increment of the particle momentum:

$$\langle (\Delta \vec{p}_1)^2 \rangle = 8\pi n(q_0^2 q_1^2 / v_0) \left\{ \pi^{-1/2} (v_1 / v_0) \exp(-v_0^2 / v_1^2) \right.$$

$\left. + (1 - v_1^2 / 2v_0^2) \operatorname{erf}(v_0 / v_1) \Delta t \ln(\Delta t / \tau_{\min}) \right\}$  (9) is obtained. As follows from a discussion of this result, consideration of the effect of gas particles upon the test particle does not affect the "binary" character of the scattering formula. In other words, many collisions "imitate" the pair collisions, on the average. The part of the maximum length in (9) is played by the quantity  $v_0 \Delta t$ . As follows from a discussion of (9), this expression may formally be applied in the range  $\tau_{\min} \ll t \ll \tau_{90^\circ}$  for a

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The Fluctuating Microfield and Multiple  
Collisions in a Gas of Charged (or Gravitat-  
ing) Particles

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B019/B056

perfect gas, this range is very large. The author thanks M. A. Leontovich and A. A. Vedenov for valuable advice; and V. M. Galitskiy and B. B. Kadomtsev for discussions. There are 1 figure and 10 references: 4 Soviet and 6 US.

PRESENTED: August 9, 1960, by M. A. Leontovich, Academician

SUBMITTED: June 28, 1960

Card 3/3

KOGAN, V. I., ABRAMOV, B. A.,

"Transfer of Impurity Resonance Radiation in Low-density Plasma,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases,  
Paris, France, 8-13 Jul 63

... технологическую физическую ...  
... to detach ... layer of ...



... calculating the optimum thickness the following withdrawal cross

L 3530-66 EWT(d)/EWT(1)/EWT(m)/EEG(k)-2/EPA(w)-2/T/EWA(m)-2 IJP(c) AT  
 ACCESSION NR: AP5015452 UR/0166/65/000/003/0029/0031

AUTHORS: Arifov, U. A.; Kogan, V. I.; Khalikov, A. Kh.

TITLE: Registration of secondary-electron current with a scintillation counter (by the method of measuring the total current)

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 3, 1965, 29-31

TOPIC TAGS: secondary electron emission, scintillation counter, measuring apparatus

ABSTRACT: A method previously investigated by the authors (Izv. AN UzSSR, seriya fiz.-mat. nauk, 1965, no. 2, 16) for the measurement of secondary-emission current, by counting the current pulses produced at the output of a photomultiplier when the secondary electrons strike a scintillator, is improved in the present investigation by using an oscilloscope to record the total current from the photomultiplier output and by bombarding the target with a modulated primary ion beam. The equipment and the experimental procedure are

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ACCESSION NR: AP5015452

3

described in detail. Although the results are still tentative, it is concluded that the sensitivity of the method (up to  $1 \times 10^{-15}$  amperes) is higher than that of an electrometer, and the method offers also advantages of higher speed and insensitivity to a strong light background. A shortcoming of the method is the need for a high vacuum (on the order of  $10^{-9}$  mm Hg). Orig. art. has: 1 figure.

ASSOCIATION: Fiziko-tehnicheskii institut AN UzSSR (Physicotechnical Institute, AN UzSSR)

SUBMITTED: 02Jun64

ENCL: 00

SUB CODE: NP

NR REF SOV: 003

OTHER: 001

Card

2/2

ARIFOV, U.A.; KOGAN, V.I.; KHALIKOV, A.Kh.

Use of a scintillation counter in recording a stream of secondary electrons when studying secondary ion-electron emission with the aid of the pulse counting method. Izv. AN Uz. SSR. Ser. fiz.-mat. nauk 9 no.2:16-22 '65. (MIRA 18:6)

1. Fiziko-tehnicheskiy institut AN UzSSR.

**"APPROVED FOR RELEASE: 09/18/2001**

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**APPROVED FOR RELEASE: 09/18/2001**

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L 28372-66 EPF(n)-2/ENA(h)/ENT(1)/ETC(f)/ENG(m) IJP(c) AT

ACC NR: AP5026977

SOURCE CODE: UR/0020/65/164/005/1008/1011

AUTHOR: Abramov, V. A.; Kogan, V. I.

ORG: none

TITLE: Study of a <sup>2/</sup>finite volume of nonequilibrium plasma

SOURCE: AN SSSR. Doklady, v. 164, no. 5, 1965, 1008-1011

TOPIC TAGS: inhomogeneous plasma, plasma radiation, spectral energy distribution

ABSTRACT: The authors show that when determining the losses to radiation from a finite volume of a plasma, with simultaneous allowance for the nonequilibrium population of the levels and the reabsorption of the radiation, there is no need for a rigorous approach such as used by R. Post (Symposium of Plasma Dynamics (Clauser, ed.), 1960, p. 30), and that it is sufficient to determine the integral flux of the outgoing quanta, for which simple and convenient formal solutions can be obtained. This conclusion is demonstrated for a two-level plasma in a finite volume. The dependence of the number of quanta emitted on the dimensions of the system is determined for both radiation proportional to the volume of the plasma and the radiation proportional to the surface area. Limiting formulas are presented for three types of radiation coming uniformly from the entire volume, surface (Planck) radiation, and instantaneous volume radiation. The approximate ranges of the parameters of the three types of radiation are indicated. This report was presented by Academician M. A. Leontovich. Orig. art. has: 1 figure and 13 formulas.

SUB CODE: 20/ SUBM DATE: 08Feb65/ ORIG REF: 003/ OTH REF: 006

Card 1/1 CC

UDC: 535.2

44  
B

ACC NR: AP0034752

SOURCE CODE: UR/0020/66/170/005/1044/1047

AUTHOR: Vasil'yev, A. P.; Kogan, V. I.

ORG: none

TITLE: Contribution to the theory of radiation transport in plasma

SOURCE: AN SSSR. Doklady, v. 170, no. 5, 1966, 1044-1047

TOPIC TAGS: transport equation, radiation energy, integral equation, approximation method, plasma radiation

ABSTRACT: The authors discuss difficulties involved in solving the radiation-transport equation, connected primarily with the fact that the kernel of the integral equation for the transport of resonant radiation does not decrease sufficiently rapidly with distance, making this equation irreducible to a differential form. Physically this makes the radiation-transport equations different from diffusion equations and impossible to solve by a diffusion approximation. It is shown that this is not always the case, and that the total frequency redistribution occurring during the re-radiation act does not by itself lead to the non-diffuse nature of the radiation-transport process. The analysis is carried out for ionization equilibrium between an impurity in a plasma of finite dimensions, using a simple model of a hydrogen-like atoms whose electron can be either at a single discrete level or in a continuous spectrum. It is further postulated that in all types of radiation the transport is accompanied by complete redistribution of the frequencies during the re-radiation act. The causes of

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UDC: 535.2

Card 2/2



KOGAN, V.I., inzh.; TILKOVICH, M.Kh., inzh.

Positional hydromechanical characteristics of cargo ships for  
inland navigation. Trudy LIT no.45:73-79 '63. (MIRA 17:6)

ACC NR: AR6034800 (M) SOURCE CODE: UR/0398/66/000/008/A016/A016

AUTHOR: Kogan, V. I.

TITLE: A thin stub wing in a unbounded flow

SOURCE: Ref. zh. Vodnyy transport, Abs. 8A94

REF SOURCE: Tr. Leningr. in-ta vodn. transp., vyp. 81, 1965, 40-49

TOPIC TAGS: thin wing, stub wing, ship, vortex, flow analysis, flow characteristic

ABSTRACT: An attempt is made to evaluate the effect of the boundedness of flow on the linear part of a transverse hydrodynamic force and its moment for a stub wing. Such a problem can be encountered when studying a ship's stability in shallow waters.  $F$  is taken as  $< 0.2$ . A simulated ship hull is considered as a thin rectangular wing and the free surface of the water is considered as a solid screen. The problem of flow around the wing situated between two walls amounts to that of the flow around an infinite grid of stubs. The wing is replaced by a system of bound vortices. Two cases are examined: a circulation is of constant

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UDC: 629.12:532

Card 2/2

KOGAN, V. Kh.

Kogan, V. Kh. "On the problem of foreign substances in the heart," Sbornik nauch. rabot evakogospitaley i Kafedry obshchey chirurgii (Irkut. ob. otd. zdravookhraneniya. Irkut. gos. med. in-t), (Irkutsk), 1948, p. 20-29

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

KOGAN, V. KH.

Kogan, V. Kh. "X-ray diagnosis of bullet wounds of large joints,"

S O: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

KOGAN, V. Kh.

"X-Ray Observations of Gunshot Wounds of the Lungs and Pleura." Thesis for degree of Dr. Medical Sci. Sub 10 Jan 50, Central Inst for the Advanced Training of Physicians

Summary 71, 4 Sep 52. Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

KOGAN, V. KH.

VASILEVSKIY, M.Ye.; KOGAN, V.Kh.; KUZNETSINA, N.P.

Intra-tracheal penicillin therapy of pulmonary suppurations.  
Sovet. med. 16 no. 7:5-8 July 1952. (CML 22:4)

1. Professor for Vasilevskiy; Doctor Medical Sciences for Kogan.
2. Of the Hospital Therapy Clinic, Yaroslavl' Medical Institute.

KOGAN, V. Kh.

KHMYROV, V.K.; AMOSOVA, M.M.; ZALKAN, P.M., professor, zaveduyushchiy; KOGAN, V.Kh., dotsent, zaveduyushchiy.

Treating eczema by X-ray irradiation of the higher centers of the central nervous system. Vest.rent.1 rad. no.2:16-19 Mr-Ap '53. (MLRA 6:6)

1. Kafedra kozhnykh i venericheskikh bolezney Yaroslavskogo meditsinskogo instituta (for Khmyrov, Amosova and Zalkan). 2. Kafedra rentgenologii Yaroslavskogo meditsinskogo instituta (for Khmyrov, Amosova and Kogan).  
(Eczema) (Nervous system) (X-rays--Therapeutic use)

KOGAN, V.Kh., professor (Yaroslavl')

Evacuation function of the stomach. Klin.med.34 no.11:39-47 N '56.  
(MLRA 10:2)

1. In kafedry rentgenologii i radiologii (sav. - prof. V.Kh.Kogan)  
Yaroslavskogo meditsinskogo instituta (dir. - prof. N.Ye.Yarygin)  
(STOMACH, physiol.  
evacuation)




S/263/62/000/011/022/022  
1007/I207

AUTHOR: Kogan, V. Kh. and Semikolennykh, A. N.

TITLE: Device for the graphical recording of  $\gamma$ -rays

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel'naya tekhnika, no. 11, 1962, 64, abstract 32.11.469. "Med. radiologiya", v. 6, no. 12, 1961, 56-58

TEXT: Brief description is given of a device for  $\gamma$ -topography designed in the radiological faculty of the Yaroslavskiy meditsinskiy institut (Yaroslavl Medical Institute); the device represents a scintillation-sensing element electrically connected with a Б-2 (B-2) type unit and mechanically, with a scanner. A photomultiplier of the ФЭУ 19-M (FEU 19-M) type is also included in the circuit. The sensing element has a lead shielding and a conical-channel collimator. A thin lead filter for scattered radiation was mounted in front of the scintillation sensing crystal. Each pulse from the scintillation-sensing element, transmitted through a scaler to an electromagnet is recorded on paper tape by strokes of the magnetic armature on carbon paper. The device described, has been used for X-ray records of a thyroid gland, after the patient received a radiation dose of 25 to 50 microcuries of  $I^{131}$ . There are 3 figures.



[Abstracter's note: Complete translation.]

Card 1/1

KOGAN, V. Kh.; SEMIKOLENNYKH, A. N.

Device for the graphic registration of  $\gamma$ -rays, Med. rad no.12:  
56-58 '61. (MIRA 15:7)

1. Iz kafedry rentgeno-radiologii (sav. - prof. V. Kh. Kogan)  
Yaroslavskogo meditsinskogo instituta.

(GAMMA RAYS-MEASUREMENT)

KOGAN, V. Kh., prof.

Review of the book by A.E. Rubasheva "Partial X-ray diagnosis  
of diseases of the bones and joints." V.Kh. Kogan. Vestn.  
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... the system photosensitivity ...

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TSentral'nogo instituta usovershenstvovaniya vrachey i TSentral'nyy  
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(HYPERTENSION, compl.

funct. disord. of brain in telegraphers, determ. of clin.  
manifest.)

(BRAIN, dis.

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AUTHOR:

Kogan, V. S., Senior Engineer

SOV/111-59-4-12/25

TITLE:

The Experience of the Moscow Automatic Subscriber Telegraph Exchange With Fully Automatic System (Opyt raboty Moskovskoy stantsii ATA po polnoavtomaticheskoy sisteme)

PERIODICAL:

Vestnik svyazi, 1959, Nr 4, pp 14 - 16 (USSR)

ABSTRACT:

All Moscow telegraph subscribers may establish fully automatic connections, if the equipment of their correspondents in other towns is connected to an automatic subscriber telegraph exchange. An automatic metering device developed by TsNIIS performs the tariff classification. The calling subscribers must be well acquainted with the signals used with the different equipment, since the exchange of the subscriber telegraph network are built according to different systems. Instructors of the Moscow exchange train the subscribers to distinguish the different signals. The lack of automatic responders reduces the efficiency of the automatic system, but recently Soviet industry began the production of AST-2 automatic responders for the ST-35 apparatus which may also be used on the STA apparatus with

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